

GLOSSARY

A

acid rain. Acid pollution in the form of wet or dry precipitation caused by the combination of sulfur dioxide, various oxides of nitrogen, and atmospheric moisture.

aiming off. An orienteering method by which the navigator aims to one side of a destination point instead of directly at it. This produces certainty that after the distance is covered the target point can only be in one possible direction.

air emission. A solid particle (such as unburned carbon), gaseous pollutant (such as nitrogen or sulfur), or an odor that is emitted into the atmosphere as a result of a broad variety of activities including exhaust from vehicles, combustion devices, landfills, compost piles, street sweepings, excavations, demolitions, etc.

air navigation. The study and practice of navigating (planning, recording, and controlling the course and position of) an aircraft.

altimeter. An instrument in aircraft that measures altitude, the distance above the horizon.

arc. Anything shaped like a curve, bow, or arch; a curved line.

ash. The residue that remains after a fuel or solid waste has been burned, consisting primarily of non-combustible materials.

attack point. An easy-to-find landscape feature shown on the map from which the final approach to a control may be made.

atheist. One who denies the existence of God or any supernatural being.

automation. Controlled operation of equipment or a system by mechanical or electronic devices that take the place of human labor.

azimuth. A horizontal angle usually measured clockwise in degrees from a north base line (direction).

B

back azimuth. The opposite direction of an azimuth obtained by adding 180 degrees to or subtracting 180 degrees from an azimuth.

bar scale. A ruler used to measure actual ground distances by converting distances on a map.

beeline. A course which travels in a straight line across the map.

bench mark. A surveyor's mark made on rocks or other permanent objects to indicate known elevations.

Buddhist. A follower of Buddhism, a religious and philosophical system based on the teachings of Guatama Buddha who rejected certain Hindu beliefs, particularly the caste system.

C

cardinal direction. The four principal points of the compass, or intersections of the horizon with the meridian and the prime vertical circle: north, south, east, and west.

Catholic. A follower of the Roman Catholic Church, a Christian church which accepts the absolute authority of the pope on decisions of faith and morals.

Celtic. Pertaining to the Celts, an ancient people who dominated Europe in the 4th century B.C. and eventually withdrew to the British Isles.

center of mass. The point closest to the middle of an object.

Christian. Relating to a religion based on the life and teachings of Jesus Christ, who followers of the religion believe to be the Son of God.

clans. Groups united by common interests or characteristics, particularly Celtic groups in the Scottish highlands claiming descent from common ancestors.

collective. Suggesting a number of people or things considered as a whole based on similar or shared characteristics or interests.

combustion. A burning; a chemical exchange, especially oxidation, accompanied by the production of heat and light.

commonwealth. A group of self-governing countries loosely associated in a common allegiance.

composting. The controlled biological decomposition of organic solid waste into soil amendments such as mulch under aerobic (in the presence of oxygen) conditions.

concave. Curving inward, as the inside of a bowl.

concentric. Having a common center.

Confucianism. A moral and religious system of China that does not teach the worship of a god or the existence of life after death, but is a guide to ethics and government based on sympathy or “human-heartedness” with others through ritual and etiquette.

continent. Any of the seven large landmasses on the planet.

contour interval. The difference in height, or elevation, between one contour line and the one next to it on a topographic map.

contour line. A line on a map that connects equal points of elevation.

contrast. To show differences when compared.

control points. A trapezoid-shaped marker (usually orange or red and white) used to mark features on an orienteering course, usually with clipper or control punch attached to mark a control card as proof of arrival.

convex. Curved outward, as the outside of a circle or sphere.

coordinate scale. A tool for plotting grid coordinates on a map.

cordillera. A system of mountain ranges often consisting of a number of parallel chains.

cultural feature. A manmade feature depicted on maps; for example, a road, railroad, dam, bridge, etc.

cut. A man-made feature resulting from the removal of high ground, usually to form a level area for roads or railroad tracks.

D

declination. An angular difference between true north and either magnetic or grid north.

deforestation. The act of clearing forests, often to earn income from timber, create farmland, or expand urban areas; may result in the permanent loss of forest areas and soil erosion.

degree. A unit of latitude or longitude, equal to 1/360 of the globe.

depression. A sunken or low place in the ground.

desertification. A process in which fertile land is turned into desert, usually due to overuse of the land and/or inadequate rainfall.

dominion. A self-governing nation of the British Commonwealth, other than the United Kingdom, that acknowledges the British monarch as chief of state.

draw. A less developed stream course than a valley.

E

equator. An imaginary line at 0 degrees latitude that circles the globe at its widest point halfway between the North Pole and South Pole.

ethnicity. Of or relating to large groups of people classified by racial, national, religious, linguistic, or cultural origin, or by background.

F

famine. An extreme scarcity of food resulting in the starvation of many people.

field-expedient. Adapting to a particular situation by using available materials and/or resources.

fill. A man-made feature resulting from raising a low area, usually to form a level area for roads or railroad tracks.

fjords. Narrow inlets of the sea between cliffs or steep slopes.

fragmented state. A discontinuous country whose national territory consists of two or more individual parts separated by foreign territory and/or international waters.

G

geysers. Natural springs that periodically eject fountains of heated water and steam from a crack in the earth's surface.

globe. A sphere-shaped model of the earth.

Greenwich Mean Time (GMT). The time of day at any given moment at Greenwich, England. GMT is noted on communications and teletype reports as "Z" or "ZULU" time, in accordance with the international phonetic alphabet.

grid. A pattern of intersecting parallel lines used to divide a map into small squares.

grid coordinate. A set of letters and numbers specifying the location of a point to the desired position within a 100,000 meter square.

grid lines. Lines that are regularly spaced at 1,000 or 10,000 meter intervals that make up the grid on a map.

grid north. The direction of north that is established by using the vertical grid lines on a map.

grid square. The intersecting of north-south and east-west grid lines at 90-degree angles to form a square.

grid zone. One of the 60 north-south divisions of the earth's surface between 84 degrees north latitude and 80 degrees south latitude, each six degrees wide.

Gulf Stream. A warm ocean current that originates in the Gulf of Mexico, flows along the east coast of the U.S., then across the Atlantic Ocean as the North Atlantic Drift; its warm water helps moderate the climate of northwest Europe.

H

hachure. A short broken line used for showing relief on a map.

hemisphere. Half of the earth, as in the Northern hemisphere, Southern hemisphere, Eastern hemisphere, or Western hemisphere.

Hinduism. The chief religion of India characterized by individual worship rather than congregational, devotion to many gods, belief in reincarnation, and the caste system (inherited social rank with strict rules governing each class of people).

homogenous. Of the same or similar nature; uniformity of structure or composition.

hydrographic feature. An ocean, coast line, lake, river, stream, swamp, or reef portrayed by tinting or blank spaces on a map.

I

ideological. Pertaining to the way an individual, group, or culture thinks about economic, political, or social concepts.

incineration. An engineered process involving combustion to thermally breakdown organic waste materials.

intermittent. Alternately stopping and starting; coming at intervals.

intersection. The method of locating an unknown point by determining where the azimuths from at least two (preferably three) known points meet (intersect).

Islamic. Relating to Islam, a religious faith that includes belief in only one God (*Allah* which is Arabic for God), Mohammed as his prophet, and the *Koran* as the word of God; followers of Islam are known as Muslims.

isthmus. A narrow strip of land connecting two larger land areas.

J

Judaism. The religion of the Jewish people developed among ancient Hebrews and characterized by a belief in one God and the eventual coming of a Messiah to rule Israel and the world.

L

landfill. A system of trash and garbage disposal in which waste is buried between layers of earth to build-up low-lying land; the waste disposal facility that uses this system.

landform. A natural or man-made feature on the earth's surface.

latitude. The angular distance north or south of the earth's equator, measured in degrees along a meridian, as on a map or globe.

leachate. A solution or product resulting from precipitation filtering or sifting through a pile of solid materials which contains water, dissolved solids, and decomposed products of solids.

legend. An explanatory description on a chart, map, or other illustration.

linear feature. A straight road, railroad, power line, etc., which can be followed from the air.

longitude. Lines that run from the North Pole to the South Pole and are equal in length on a map or globe.

M

magnetic azimuth. A direction that is expressed as the angular difference between magnetic north and a line of direction.

magnetic north. The direction to the north magnetic pole, as indicated by the north-seeking needle of a magnetic instrument.

man-made. Manufactured, created, or constructed by man, rather than formed by nature.

map. A line drawing, to scale, of a portion of the earth's surface, as seen from above.

marginal information. Instructions placed around the outer edge of a map.

mean sea level. The position of the level of the surface of the sea midway between high and low water.

meridian. An imaginary circle on the earth's surface passing through the North and South Poles; a line or parallel of longitude.

methane. An odorless, colorless, flammable gas that can be formed by the anaerobic (in the absence of oxygen) decomposition of organic waste matter or by chemical synthesis; it is the principal component of natural gas and landfill gas.

mil. A unit of measure that expresses the size of an angle formed when a circle is divided into 6,400 angles with the vertex of the angles at the center of the circle; one degree equals 17.78 mils.

Military Grid Reference System. This grid reference system is designated for use with UTM grids. The coordinate value of points in these grids could contain as many as 15 digits if numeral alone were used, but the US Military Grid Reference System reduces the length of written coordinates by substituting single letters for several numbers.

monsoon. A wind system that changes with the seasons, especially in the Indian Ocean and

southern Asia; heavy rainfall that is associated with this type of wind system.

N

nautical mile. A unit of measurement that is approximately 6,080 feet — which is one minute of latitude; it is slightly longer than a statute mile (see **statute mile**).

nomadic. Living without a fixed location; moving from place to place for trading purposes or in search of pasture and water for livestock.

O

oasis. Fertile areas in the desert where underground water reaches the surface.

ocean. One continuous body of salt water that is broken up by landmasses, given four different names based on where it is divided by continents: *Pacific Ocean, Atlantic Ocean, Indian Ocean, and Arctic Ocean.*

orient. To align or position oneself (or a map) in relationship to one's surroundings.

orienteering. A competitive form of land navigation in which each participant uses a map and compass to navigate between check points.

Orthodox Church. A community of Christian churches that originated in eastern Europe and southwest Asia after separating from the Catholic Church in 1054 over differences in doctrine, including acceptance of the pope's supremacy.

P

pace count. The number of paces required to walk 100 meters. A pace is counted each time the left foot strikes the ground.

parallel. Lines that do not intersect.

pelletize. To form or compact debris into pellets.

per capita. Per person.

pilotage. Landmark flying using charts that give enough details of points on the ground for navigating.

plural state. A country in which there has been extensive contact between two or more national groups without any real cultural mixing.

polar coordinates. (1) A method of locating or plotting an unknown position from a known point by giving a direction and distance along that direction line; (2) The use of either of two coordinates that together specify the position of any point in a plane.

Polar Regions. The areas surrounding the North and South Poles. (See Poles).

Poles. The points on the globe representing the northernmost and southernmost points of the earth, located on each end of the earth's imaginary axis. (See Polar Regions).

pollutant. Any solid, liquid, or gaseous matter that is in excess of natural levels or established standards.

postindustrial. Dominated by production and manipulation of information, skilled services, and high-technology manufacturing.

preflight. Includes planning a flight and making a check of your aircraft.

Prime Meridian. The line of longitude that passes through Greenwich, England, designated as zero degrees longitude, and from which longitude east and west is measured.

prominent. Very noticeable or conspicuous; well-known.

Protestant. Broadly defined, a Christian not of a Catholic or Orthodox Church, including the Amish, Anglican, Assemblies of God, Baptists, Congregationalists, Episcopalians, Evangelicals, Lutherans, Mennonites, Methodists, and Presbyterians, among others. Protestantism began in the 1500s in western Europe as a protest against the Catholic Church.

R

recycle (-ing). A procedure of putting waste substances back into productive use, thus reducing the demand on non-renewable resources and preventing problems of pollution and waste disposal.

relief. The shape of land formations on the earth's surface.

representative fraction (RF). The relationship of distance measured on a map to the corresponding distance on the ground; it is usually written as a fraction (e.g., if a map sheet is 1:50,000, RF is 1/50,000).

resection. The method of locating your unknown position by determining where the back azimuths from two or three well-defined locations on a map meet.

ridge. A sloping line of high ground.

ridgeline. A line of high ground, usually with changes in elevation along its top.

S

saddle. A low point between two areas of higher ground.

sear (-ing). To burn or scorch with a sudden application of intense heat.

semiautonomous. Largely self-governing within a greater political organization.

Slavs. The largest group of Europeans sharing common ethnic and linguistic origins, including Russians, Belorussians, Ukrainians, Serbs, Montenegrins, Poles, Macedonians, Czechoslovakians, Slovaks, Croats, and Bulgarians.

solid waste. Garbage, refuse, sludges, and other discarded solid materials including those from industrial, commercial, and agricultural operations, and from community activities, but excluding solids or dissolved materials in domestic sewage or other pollutants in water resources.

source reduction. The process of keeping waste out of the waste system through buying practices, conservation, etc.

spatial. In terms of geography, relating to space (area) on the surface of the Earth.

spur. A sloping line of high ground projecting out from the side of a ridge.

statute mile. A unit of measurement that is approximately 5,280 feet (it is commonly referred to as a “mile”).

steering mark. An easily identifiable feature in the landscape not shown on the map, and is used by the orienteer to follow a bearing.

sultanate. A country governed by a sultan, the title given to the supreme authority usually of a Muslim state.

superimpose. To place over or on top of something else.

synthetic. Something resulting from synthesis (the formation of a compound from its components) rather than occurring naturally; man-made or artificial; not of natural origin.

T

tectonic plates. Slowly moving plates of the Earth’s crust that carry the continents; where two plates meet, one slides under the other, crumpling the crust and producing mountains, volcanoes, and earthquakes.

terrain. A region or tract of land; the character (or topography) of a tract of land.

topographic map. A map that shows relief and the position of natural and man-made features.

toxicity. The level of poison or harm of a particular substance.

true north. A line from any position on the earth’s surface to the geographic north pole; symbolized by a line with a star at the apex.

U

Universal Transverse Mercator. (or UTM) A grid system that has been designed to cover the part of the world between latitude 84 degrees north and latitude 80 degrees south, and, as its name implies, is imposed on the transverse Mercator projection.

V

Variation (declination) Angle. The angular difference between any two norths.